



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,198	09/11/2003	Keiji Shioda	00658D/LH	9433
1933	7590	12/22/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			NGUYEN, THONG Q	
220 Fifth Avenue			ART UNIT	
16TH Floor			PAPER NUMBER	
NEW YORK, NY 10001-7708			2872	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/662,198

Applicant(s)

SHIODA ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment filed on Oct. 14, 2005. It is noted that in the amendment, applicant has made changes to the specification, the drawings and the claims. Regarding to the claims, applicant has amended claims 1 and 4-8 and canceled claims 10-20. The remaining claims 1-9 are examined in this Office action.

Drawings

2. The drawing contained one sheet of corrected figure 9 was received on 10/14/05. The corrected figure 9 is approved by the Examiner.

Specification

3. The lengthy specification which is amended by the amendment of 10/14/05 has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

4. The rejection of claim 12 under 35 U.S.C. 112, first paragraph, is overcome by the cancellation of the claim.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita (Japanese reference No. 10-333047 A, of record) in view of Fantone et al (U.S. Patent No. 4,786,154).

Morita discloses an operating microscope comprising an image projecting optical system for producing images derived from an endoscope optical system which is provided separate from the operating microscope, into an eyepiece optical system of the operating microscope so that the operating microscope image and the endoscope image can be simultaneously observed. Morita also discloses the use of at least one other optical display system for providing other images related to the object which images of the other display system are projected into the field of view of the operating microscope wherein the operating microscope image, the endoscope image and the image provided by the other display system are different from each other.

In particular, in the embodiment described in columns 20-21 and shown in figures 27A-27B, the operating microscope comprises an observation optical system (49) for forming an optical image of an object including an affected region and an observation means (48, 153) for observing the operating microscope image (152) in a field of view of the observational optical system. The first display means comprises an endoscope (37) with a camera, a camera adapter (43), a camera control unit (43) for displaying images of an object in the operation part (51) in a liquid crystal display (148) via an image processing unit (145). The other display systems for observably displaying other images are in the form of a waveform

monitor (146) and CT system (147) wherein the images provided by the monitor (146) and/or CT system (147) are projected into the liquid crystal element (148) via the same image processing unit (145). Regarding to the images superimposing on the operating microscope image, in columns 20-21, Morita discloses that the images provided by the endoscope, the waveform monitor and the CT system are superimposed onto the operating microscope images and the sizes and contents of the operating microscope image (152), the endoscope image (155) and the waveform image (156) or the CT image (157) are different from the others.

Regarding to the feature related to a computer for controlling the size of the image provided by the endoscope, it is noted that the use of a camera control unit (41) for controlling the image provided by the endoscope (37) to the image processing unit (145) is inherently capable to vary the size of the image dependent upon the magnification of the optical microscope. The support for that conclusion is found in the other embodiments provided by Morita when he discloses the combination of an operating microscope and an endoscope which image of the endoscope is large in comparison to the operation microscope image (see the embodiment shown in figure 12). The size of the endoscope image as shown in the embodiment of the figure 27A in comparison to the endoscope image as shown in the embodiment of figure 12 is an evidence to show that the size of the endoscope image is able to vary by the operation of the camera control unit (41) and the image processing unit (145).

Regarding to the feature that the second image in the form of a marker image, such feature is also considered as an inherent feature from the images superimposed into the operating microscope image provided by either the waveform monitor (146) or the CT system (147) absent the specific structure of the so-called "marker image" recited in the present claim. For instance, the CT images can include a graph with scales or any medical symbols related to the object to be operated/observed to provide more information related to the object to the observer.

The only feature missing from the system provided by Morita is that he does not clearly disclose the use of two display systems and two optical systems wherein each display system is on the optical axis of the correspond optical system so that the correlation of display positions of the first and second images are maintained as claimed in the newly-added material added to the present claim 1. However, the use of two systems each comprises a display and an optical system wherein the display is arranged on the optical axis of the optical system is known to one skilled in the art as can be seen in the microscope provided by Fantone et al. In particular, Fantone et al disclose a microscope having an observation system for forming an image of an object and two systems each comprises a display (42) and an optical system (44) wherein the display (42) is arranged on the optical axis of the optical system (44). See column 4 and fig. 2. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the system provided by Morita by using two

systems each comprises a display and its own optical system for the purpose of providing images which images are projected/imposed onto the image in the field of view of the observation system as suggested by Fantone et al for the purpose of correlation of the displayed positions in the image in the field of view of the observation system.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita in view of Fantone et al as applied to claim 1 and further in view of Truppe (of record)

The operating microscope comprising an image projecting optical system for producing images derived from an observation optical system of the microscope, an endoscope optical system and two optical display system for providing images related to the object which images can be simultaneously observed as provided by Morita and Fantone et al meet all of the features recited in claim 8 except that it does not clearly state the first image provided by the endoscope includes image indicative of position of the endoscope. However, the use of an endoscope having a position camera attached thereto for providing information related to the position of the endoscope and for projecting the information onto the visual field of the image provided by the endoscope is disclosed in the art as can be seen in the system provided by Truppe. See columns 5-6. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the system as provided by Morita and Fantone et al by using an endoscope having a camera with a position sensor as suggested by Truppe for

the purpose of providing position data of the endoscope in the visual field of the operator.

Response to Arguments

8. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

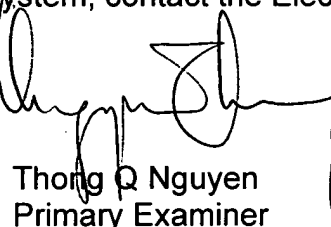
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen
Primary Examiner
Art Unit 2872

*Entry approved
 12/19/03*

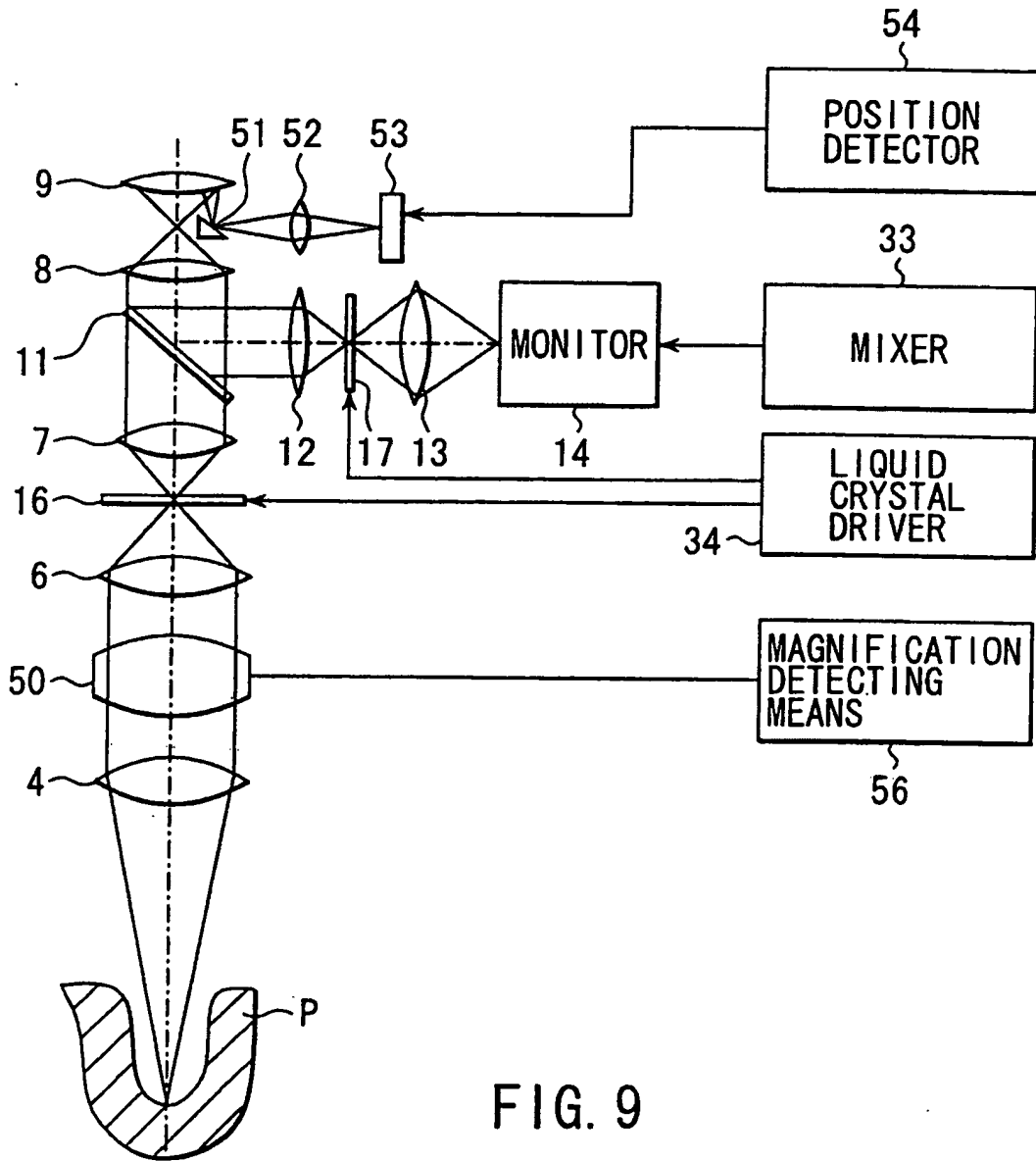


FIG. 9